CLAIMS

We claim:

1   1.   A method comprising:

2   creating a description of a user interface, said description

3   based upon a data model of a database; and

4   distributing said description to a client, said client

5   enabled thereupon to generate elements of said user interface

6   that permits a user of said client to transact with said database

7   in a manner conforming to said data model.

1   2.   A method according to claim 1 further comprising:

2   said client requesting that said description be created.

1   3.   A method according to claim 1 wherein said creating

2   includes:

3   classifying of entities according to said model.

1   4.   A method according to claim 1 further comprising:

2   interpreting of said description by said client;

3   creating of a controller hierarchy resulting from said

4   interpretation; and

5   generating of elements of said user interface through said

6   controllers.

1   5.   A method according to claim 4 further wherein said

2   client requests data from said database, said data utilized to

3   populate said user interface elements.

1   6.   A method according to claim 3 wherein an application

2   server performs said classifying, creating and distributing.

1   7.   A method according to claim 6 wherein said application

2   server obtains said data model prior to classifying.

1   8.   A method according to claim 6 wherein said application

2   server receives preferences of said client, said preferences

3   utilized in creating said description.

1   9.   A method according to claim 6 wherein said application

2   server receives authentication information from said client, said

3   server authorizing said client prior to creating said

4   description.

1   10.   A method according to claim 3 wherein said classifying

2   includes:

3   determining whether a given entity satisfies first set of

4   conditions, and if not, then classifying said given entity as a

5   Dependent entity type;

6   if said given entity satisfies said first set of conditions,

7   then determining if said given entity additionally satisfies a

8   second set of conditions; and

9   if said given entity is determined to additionally satisfy

10   said second set of conditions, then classifying said given entity

11   as a Enumeration entity type, and if not, then classifying said

12   entity as a Main entity type.

1   11. A method according to claim 10 wherein if said given

2 entity is classified as type Enumeration then:

3   providing for said given entity a Query window; and

4   providing for said given entity a Modal Select Dialog.

1   12. A method according to claim 10 wherein if said given

2 entity is classified as type Enumeration then:

3   providing for said given entity a Query window;

4   providing for said given entity a Form window and a Modal

5 Form Dialog; and

6   providing for said given entity a Modal Select Dialog.

1   13. A method according to claim 1 wherein said creating and

2 distributing are repeated for every desired instantiation of said

3 user interface to said database.

1   14. A system comprising:

2   a client; and

3   an application server coupled to said client, said

4 application server configured to provide to said client a

5 description of a user interface to a database, said description

6 based upon the data model of said database.

1   15. A system according to claim 14 wherein said client

2 provides at least one a request for said user interface

3 description, preferences and authentication information.

1   16.   A system according to claim 15 wherein said server

2   provides data from said database to said client in order to

3   populate said user interface.

1   17.   An article comprising a computer readable medium having

2   instructions stored thereon which when executed causes:

3   creating a description of a user interface, said

4   description based upon a data model of a database; and

5   distributing said description to a client, said client

6   enabled thereupon to generate elements of said user interface

7   that permits a user of said client to transact with said database

8   in a manner conforming to said data model.

1   18.   An apparatus comprising:

2   means for creating a description of a user interface, said

3   description based upon a data model of a database; and

4   means for distributing said description to a client, said

5   client enabled thereupon to generate elements of said user

6   interface that permits a user of said client to transact with

7   said database in a manner conforming to said data model.

1   19.   An method according to claim 1 further comprising:

2   creating property lists for each of four tasks, said tasks

3   including Query, List, Form and Identify tasks, said lists

4   determining the visibility of properties in said elements of said

5   user interface.